

PRESS RELEASE

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FOR IMMEDIATE RELEASE

A720 Sheriffhall Roundabout project continues to gain recognition scooping four major National Award wins in 2016

An innovative and original approach to reducing lane transgression on a multi-lane roundabout has continued to attract widespread industry recognition throughout 2016 with four independent awards, including most recently the National Transport Award for the most Innovative Transport Project.

Connecting several key roads around Edinburgh and handling upwards of 42,000 vehicles a day, the A720 Sheriffhall Roundabout has the potential to become very congested at peak times, so any incidents can bring about major disruption.

In 2014 Clearview Intelligence, working alongside BEAR Scotland and current incumbents Amey, for Transport Scotland, installed an innovative intelligent road stud solution on the roundabout, the first of its type in the UK.

The solution uses Clearview Intelligence active road studs triggered by green phases of traffic signals on the roundabout. With the new system in place, as soon as the traffic signal on the entrance to the roundabout turns green, studs embedded in the road surface immediately illuminate and guide drivers onto the appropriate lanes of the roundabout. As the traffic signal turns red, all of the studs on that section switch off and the studs at the next section illuminate as the corresponding traffic signal turns green.

In this way, drivers now get an illuminated green phase to guide them all the way around and off the roundabout, with clear visual definition of the lanes to heighten lane discipline and reduce preventable collisions.

Independent evaluation by researchers from the Transport Research Institute at Edinburgh Napier University conducted a full 'before and after' study on driver behaviour at the roundabout with over 55,000 individual vehicle movements being analysed.

The research to date has found a reduction in lane transgression activity across nearly all vehicle types and manoeuvres, even during daylight hours, with a significant reduction in transgression rate (>50%) for medium-sized vehicles. Overall, the study has concluded that the intelligent road stud scheme has significant positive impact on collision risk at the roundabout through reduced lane transgressions, meaning less congestion and fewer accidents.

With such strong and positive research results to back up the effectiveness of the solution, it has attracted widespread industry recognition in 2016, winning:

- National Transport Awards - Most Innovative Transport Project
- Highways Magazine Excellence Awards - Road Marking Project of the Year
- Chartered Institution of Highways & Transportation - John Smart Road Safety Award
- Scottish Transport Awards - Excellence in Technology and Innovation Award

The CHIT judges commented: "The panel was impressed by this solution to poor lane discipline on a large six-arm roundabout leading to high collision frequency. Benefits are strong with 'after' casualty rates better than half those previously recorded and improvements in all conditions. There is good scope for application to other locations where similar problems occur."

Commenting on the award wins, Nick Lanigan, Managing Director of Clearview Intelligence said “We are immensely proud to have received these four awards and have been recognised by our peers to be producing innovative and safety enhancing traffic solutions. Credit where credit is due to the Clearview team, BEAR Scotland, Amey and of course Transport Scotland for being open to new thinking in installing safety solutions. There is plenty of scope for this kind of idea to make a real impact across the UK road network over the coming years.”

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Background on the A720 Sheriffhall Roundabout solution:

<http://www.clearview-intelligence.com/case-studies/a720-sheriffhall-roundabout-irs2-intelligent-road-stud-scheme>

Sheriffhall, a six-arm roundabout, connects several important routes, including the A7 and the A720, and handles upwards of 42,000 vehicles a day.

The roundabout is traffic signal controlled and features spiral markings to guide drivers through the junction to their destination arm. Despite these measures, casualty statistics indicated that Sheriffhall had a high frequency of accidents with some 65 injuries

recorded in the 10 years to 2013. Additionally, even minor collisions at this junction have the knock-on effect of causing significant disruption across the network.

BEAR Scotland approached Clearview Intelligence to help develop an active road stud design which would encourage drivers to stay in-lane throughout the complex roundabout junction.

Entry to the roundabout from the A720 is traffic light controlled, so the new scheme coordinates this signalisation with the installation of the intelligent hardwired road studs to increase driver awareness and improve lane discipline across the A720 routes over the roundabout.

When the traffic signal turns green, the road studs immediately illuminate and guide drivers onto the appropriate lanes of the roundabout. The studs are extinguished when the signal turns red and traffic from other arms may enter the roundabout.

The design of the intelligent road stud scheme, synchronised with the traffic signalisation, represented a UK-first when it was installed in 2014.

In 2015, the Transport Research Institute at Edinburgh Napier University published some independent research on the impacts of the intelligent road stud scheme at Sheriffhall.

The researchers concluded that the installation of the intelligent road studs scheme has resulted in the following outcomes:

- i. reduction in lane transgression activity across nearly all vehicle types and manoeuvres;
- ii. significant reduction in transgression rate (>50%) for medium-sized vehicles;
- iii. studs have a positive impact even during daylight hours;
- iv. lane transgression rate decreases as traffic flow increases;
- v. driver behaviour was found to be more predictable and consistent post-installation.

Photos:





For further information please contact.

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